

Title: THE LACTOSE OPERON OF LACTOBACILLUS DELBRUEKII AND
ITS USE FOR CONTROLLING GENE TRANSCRIPTION AND/OR
EXPRESSION IN BACTERIAL CELLS

Inventor: Germond, J. et al.

App. No.: 10/019,817

Docket No.: 112843-039 Replacement Drawing



FIG. 1

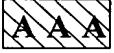
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LL44, LB68 .. T G T T T A C T A A A A A T A T T T T G G T A A A G C A
853 860 870 880

N62, LB10 .. T G T T T A C T A A A A G T A T T T T G G T A A A A C A
853 860 870 880

N141 ..  G A C T A A A A G T A T T T T G G T A A A A C A
853 860 870 880

ISL7

N299 ..  T T A C T A A A A A T A T T T T A G T A A A A C A
853 860 870 880

ISL5

O2

LL44, LB68 T C T T G A T T T G T T T A G T A A A C G G G T C T A T A...
890 900

N62, LB10 T C T T G A T T T G T T T A G T A A A C A A G T C T A T A...
890 900

N141 T C T T G A T T T G T T T A G T A A A C A A G T C T A T A...
890 900

N299 T C T T G G T T T A T T T A G T A A A C A A G T C T A T A...
890 900

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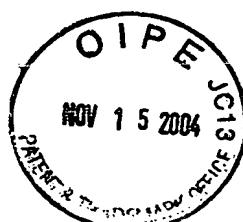


FIG. 2

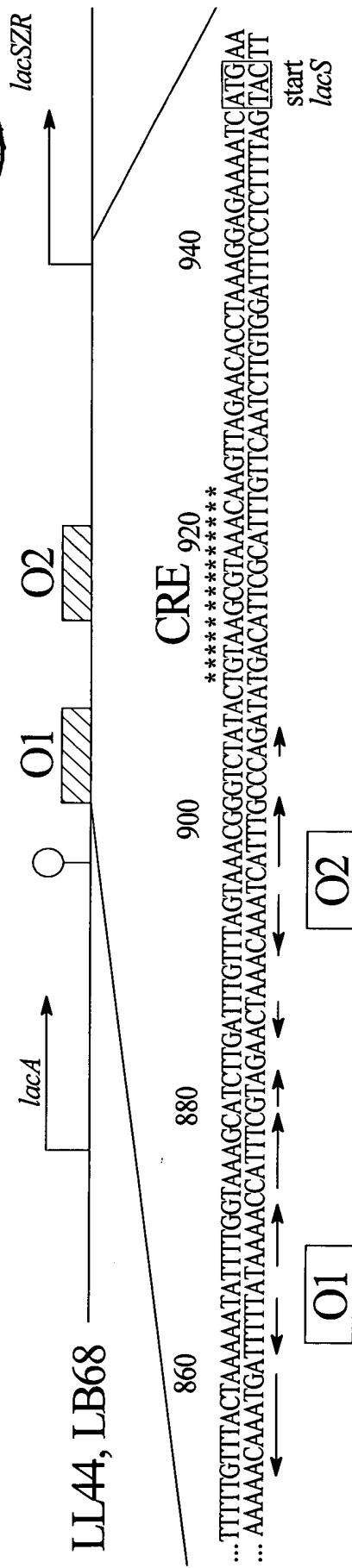


FIG. 3

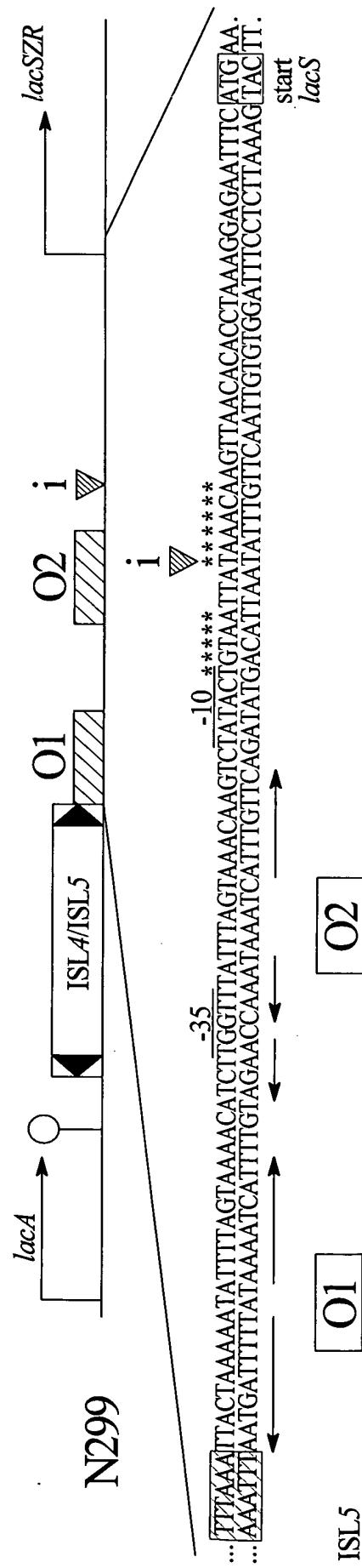




FIG. 4

1 GAATTCTGGATGCTAGGAAGCCGCCAGCTCAAGCTGGTATTAGCCACTTTT
stop lacZ

61 ACTGAATATGCTACAATTGACTAACAGCATAAAATTAGTAAAAGCGAGTGAAGAAG RBS

121 ATGGCAACGATCAGAGAAGTGGCCAAGGCAGCCGGTGTGCCAGCGACGGTTCCGG
1 M A T I R E V A K A A G V S P A T V S R
helix turn helix

181 GTCTTGAACATGACCAGACCCGTCAATGAGGCAACGCCAGAAGATATTCAAA
21 V L N Y D Q T L S V N E A T R Q K I F K

241 ACTGCTGAAGCCATGCACTACCATAAGAGCCGAAGACCAGAAAGAGCAAGCAAAAGCGC
41 T A E A M H Y H K S R K T R K S K Q K R

301 CTGGCGATCTGCCTGTGGTGTGACCAAGACCAGGAGATCAAGGACCTCTATTACTATTCA
61 L A I C L W C D Q D Q E I K D L Y Y Y S

361 ATCAGAACCGCGCGCAAGCAGAGGCCAAGAACGAGGGACTTGAAGGCCAGGTCTTTAT
81 I R T S A Q A E A K K Q G L E S Q V I Y

421 CCGGCTGATCCTTGGCCGATCCAGCTGCTTAAGCGGGATTATCATGATTGGCTACCAAG
101 P A D P L P D P A A L S G I I M I G Y Q

481 CAGTATTGCCAGACCGCTTGAATGAAGTCAAAAGTCTGGCCTGCCCTGGTCTTGT
121 Q Y S P D R L N E V K K S G L P L V F V

541 GATACTGACACCTTAAATTGGGTTACTGCTCAGTTGGCTGACTTGGCCAGGCCATG
141 D T D T L K L G Y C S V V A D F G Q A M

601 CAGGAGGCGCTAGAGGTCTCTGGGGCAGGGCAGGGAGCGGATGCCCTTGGATGGT
161 Q E A L E V F W G Q G R E R I A L L D G

661 GATTGGACAGTAATTGATAAAACAACCTGGTCACITCCGCTTCCGCGATTATAAG
181 D L D S N F D K N N L V D F R F R D Y K

▼

721 AAGAGCCTCGGGCCCGGCCAGTACGACCCGGACTTAGTCTATGGAAACTTCACT
201 K S L A A R G Q Y D P D L V Y V G N F T

781 CCGCAATCTGGCTATGAAGCCATTAAAGAACGCTCTTAAGTCCGGCTCCTCCGAAAGCC
221 P Q S G Y E A I K E A L K S G S F P K A

841 TTGATTGCCGCTAATGACGCCATGGCTATTGGAGCATTGAAGGCCCTTAAAGAACGCTGG
241 L I A A N D A M A I G A L K A F K E A G

901 ATAAAGTCCCAGAGGACGTCAGTCTGATTCTTAATGACACAACGGCAGCAGAATT
261 I K V P E D V S L I S F N D T T A A E F

961 GCCAACCCAGCCCTGACTAGCGTACATGTAGAGACCCAGCAGATGGCCAGCCAGCGTC
281 A N P A L T S V H V E T Q Q M G R A S V

1021 AAGGTATGAAAGACCTGGATGATGATGAAGCCGGCACTTACAAGGTCACTTCCCA
301 K V M K D L L D D D E A G T Y K V T F P

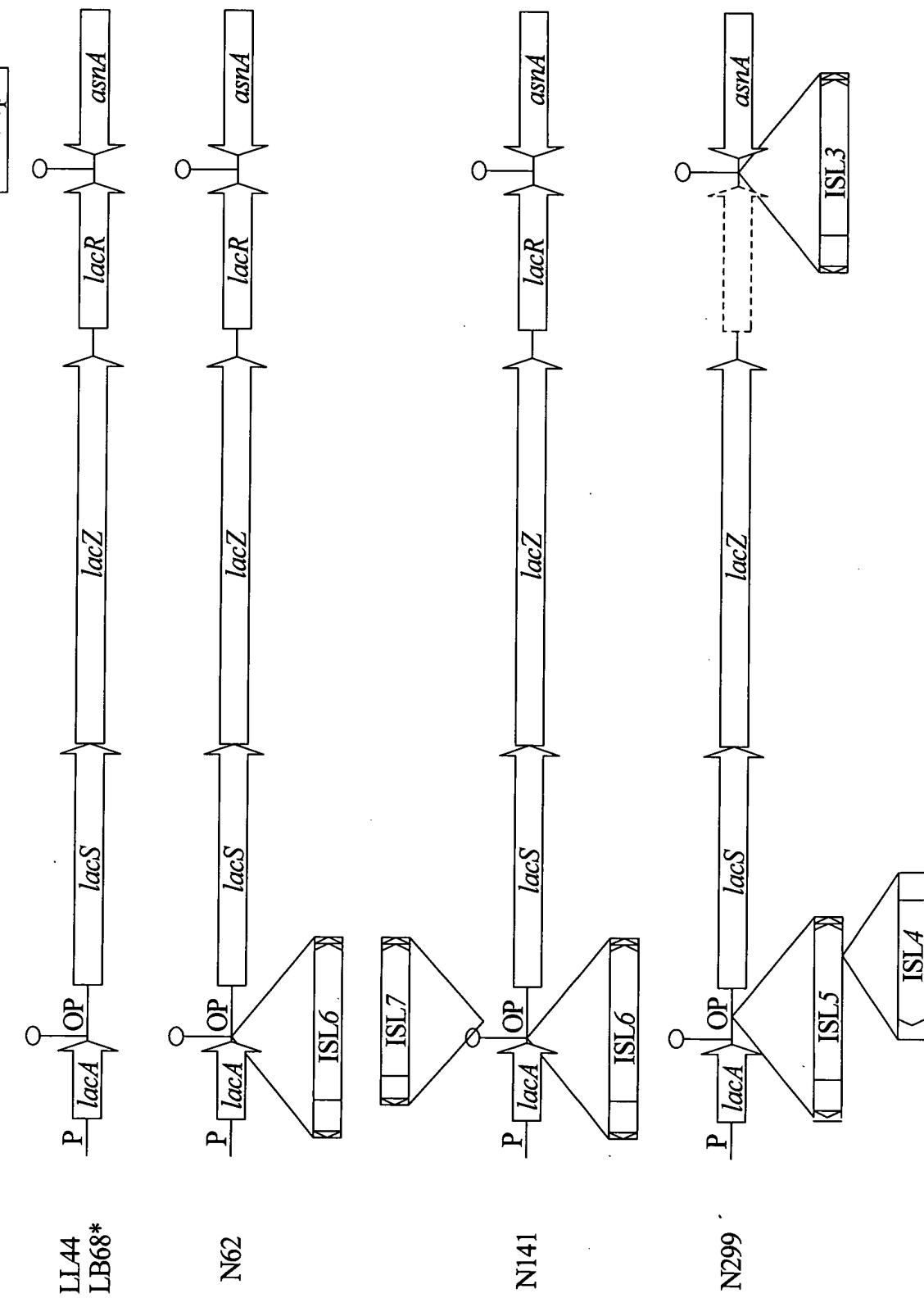
1081 ACAAAACTCGTTACCGGGAACTTGCCTAAAGCATAAGGGCATAGAGCATAATAACAG
321 T K L V Y R E S C P K A *

1141 CAAAGAAATAGCTGGAGATTGATTCTCCAGCTATTTCGTATATATTATGGCTGC
stop asna

1201 ATTCTGTTGATCATTGGAAATGGGACAGCTCACGAACGTGGTCCAGCTGCAGATC
1261 CAGGCAATGACCCGTTCAAAG



FIG. 5



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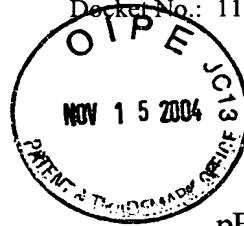
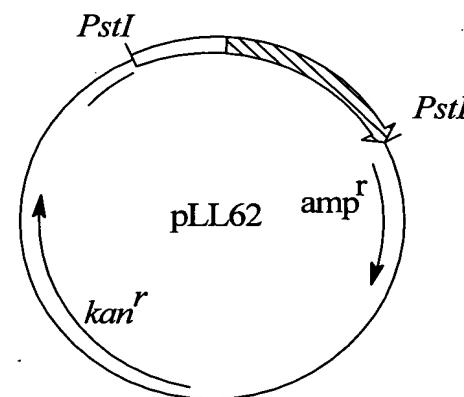
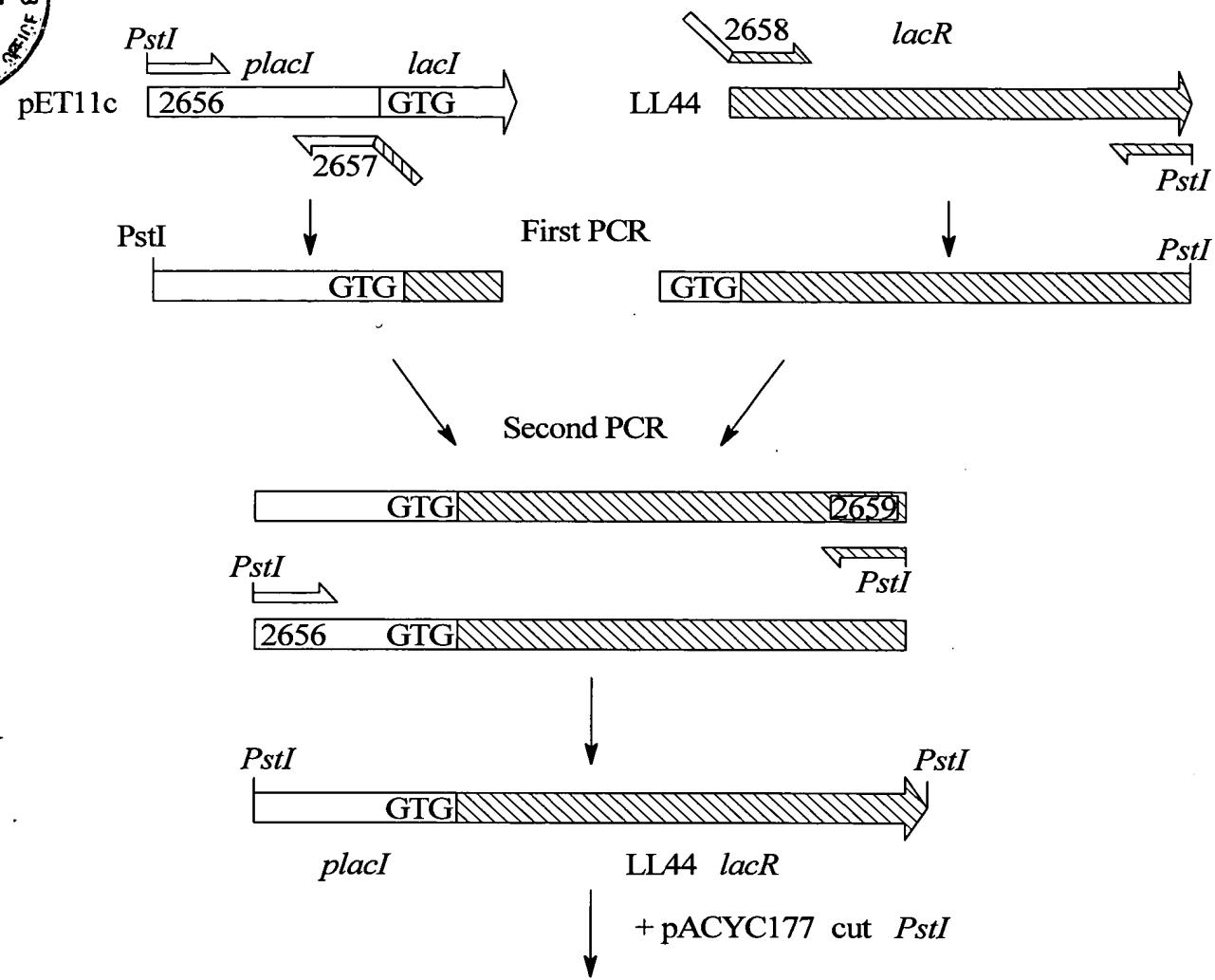


FIG. 6



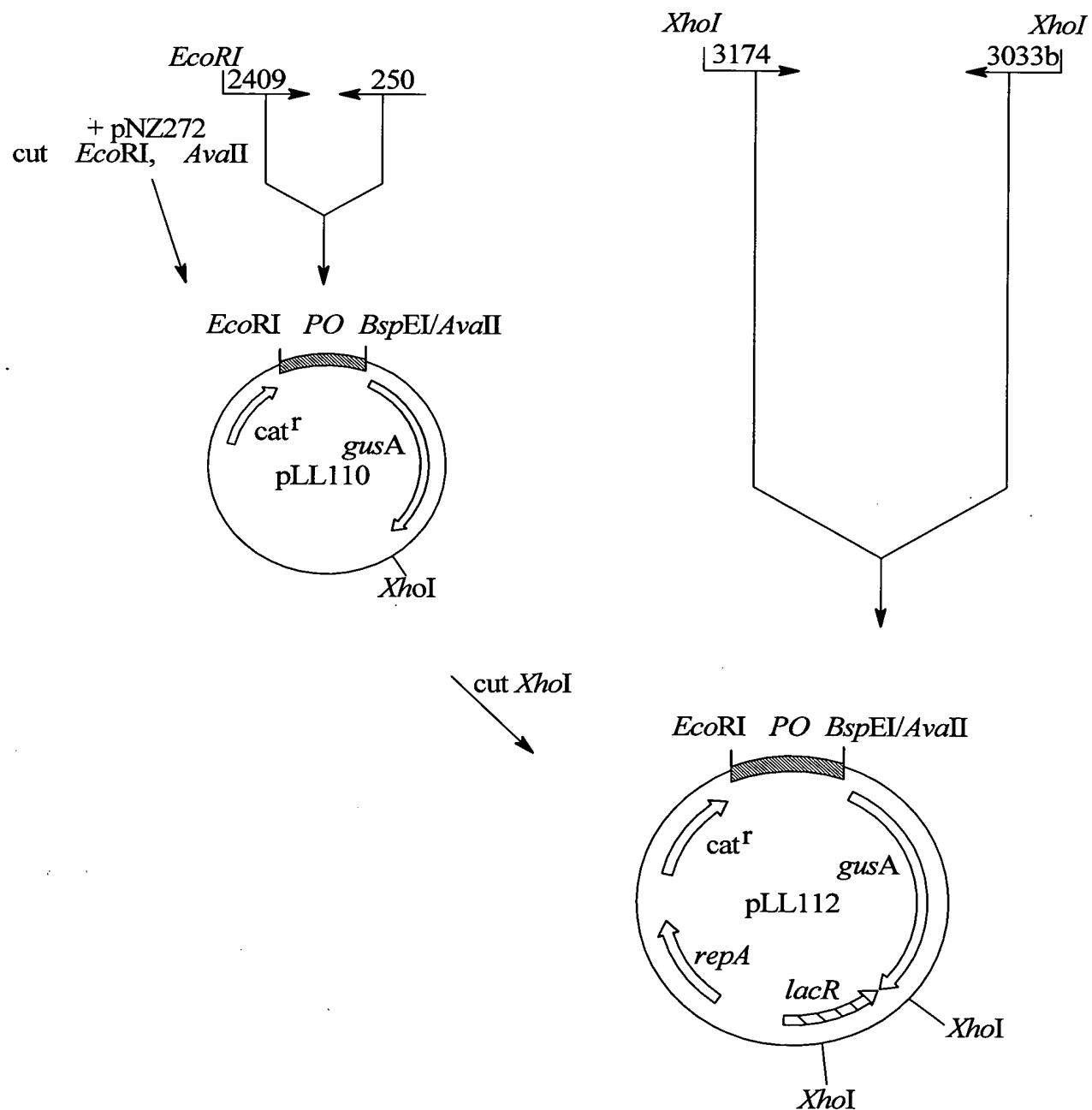
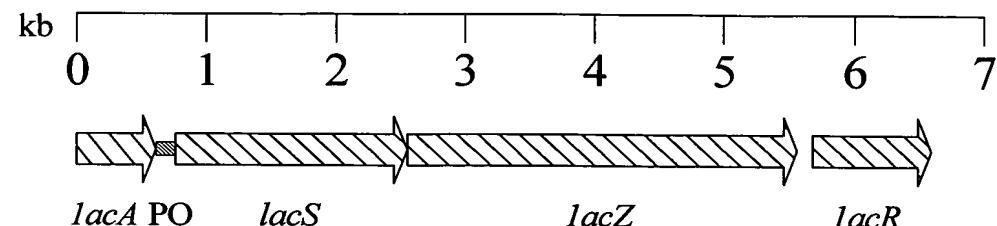
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FIG. 7



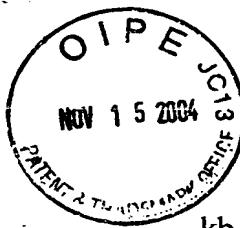
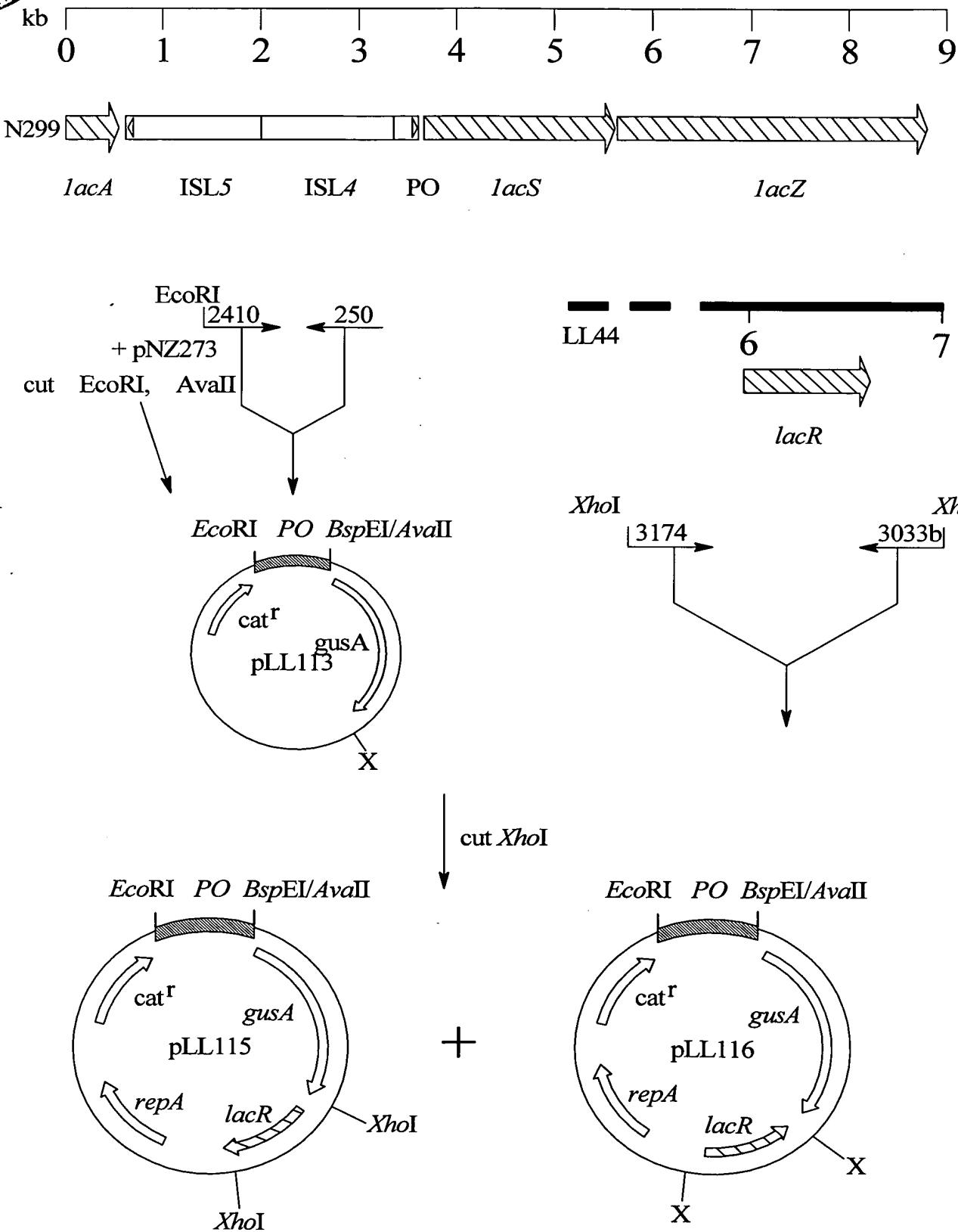


FIG. 8



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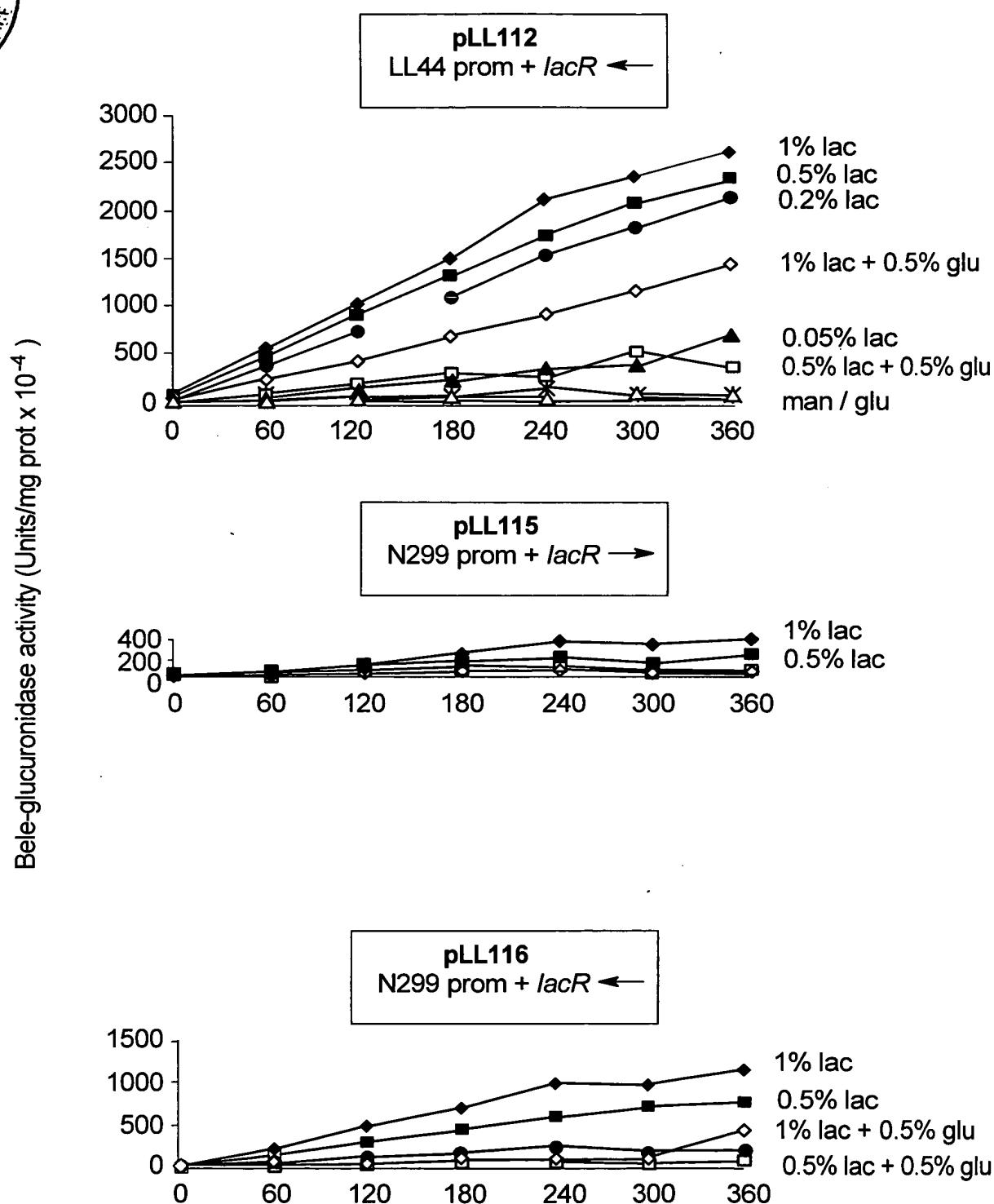
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FIG. 9



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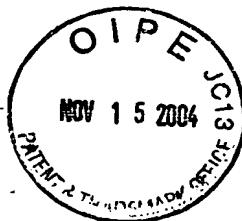
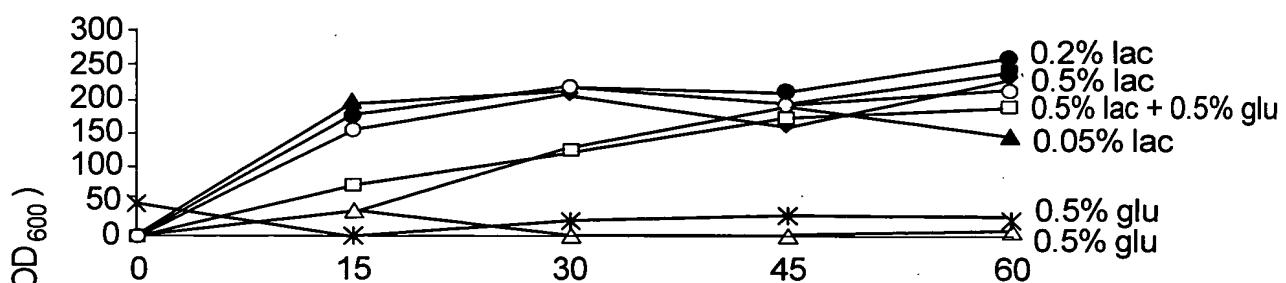


FIG. 10

LL44



N299

